

PRE EXERCISE ORS DRINK AND MUSCLE EFFICIENCY BY BICYCLE ERGOGRAPHY

ABSTRACT

BACKGROUND OF THE STUDY:

Dehydration, substrate and electrolyte depletion are the major problems seen during a prolonged bout of exercise. Administration of Oral Rehydration Solution (ORS) can be of great benefit to those involved in the exercise programs of longer duration as it contains water, carbohydrates and electrolytes which help to delay fatigue

INTRODUCTION:

Nutrition is found to play an important role that mediates skeletal muscle adaptations during exercise performance of an individual. Carbohydrates, electrolytes and water help to improve exercise performance.

AIM OF THE STUDY:

To record the muscle efficiency parameters by performing exercise in bicycle ergometer till fatigue in male students by administering Oral Rehydration Solution (ORS) before the exercise session.

MATERIALS AND METHODOLOGY:

This is a Cross Sectional study, performed in the Research laboratory of the Department of Physiology, Coimbatore Medical College, Coimbatore. About 50 male students performed cycling exercise in bicycle ergometer in seven sessions at 50, 75 and 100 watts intensities, without and with ORS ingestion before the start of the cycling exercise. Parameters like energy expenditure, cycling duration and cycling distance. METs and RPP, SpO_2 and VO_{2max} were recorded.

RESULTS:

The data collected from the selected subjects were recorded in a Master Chart. Using **SPSS 22 version** software, mean, standard deviations and 'p' values were calculated. **Unpaired 't' test** and **ANOVA test** was used for comparison of parameters. There was a significant relationship between the comparison of parameters without and with ORS ingestion before the onset of cycling exercise..

CONCLUSION:

In the present study there is an increase in the muscle efficiency parameters, RPP, METs and VO_{2max} values following ORS ingestion and exercise by bicycle ergometry.

Keywords: Muscle Efficiency, Calories, Exercise.